The Problem *of the* Partially-Sighted Child

The following address was delivered by
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on the occasion of the last biennial meeting
of the **South African National Council for the Blind,** in March, 1931.

The Council has thought it advisable to publish this address in pamphlet form to make it available for those who are interested in the problem of defective sight and blindness.

The Council has also available a leaflet which deals with the same subject in more popular form and which may be obtained free by applying to the
Secretariat, P.O. Box 217, Cape Town.

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In addition to this pamphlet the Council has available:

1. THE BLIND CHILD IN THE HOME.
   (*a*) Prevention of Blindness.
   (*b*) The Care of the Blind Infant.
   (*c*) The Blind Child in the Holidays.
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The Problem of the Partially-Sighted Child

One of the objects of the South African National Council for the Blind, as laid down in its Constitution, is to acquire and to disseminate knowledge concerning the causation and prevention of blindness. The problem of the partially-sighted, therefore, comes within the sphere of its functions, as the condition of partial-sightedness is sometimes the precursor of blindness.

The tendency in modern times is to ascertain and to single out factors operating in society which cause unhappiness and inefficiency, and as these causes become known and in so far as they can be avoided, to apply systematic efforts to eliminate them.

Blindness is one of the causes which affect man's efficiency, and, to some extent, his happiness, unless the blind person be suitably trained and provided with a proper outlook on life. Our programme of social hygiene should, therefore, include as one of its objectives the prevention of bliudness. Considerable advance has already been made in this direction. I need only mention the great reduction in blindness from babies' sore eyes (ophthalmia neonatorum), from occupational diseases and from eye diseases generally.

Sight-saving should be considered as an essential part of the programme of the prevention of blindness. Poor sight constitutes a physical and educational handicap which may seriously retard school progress, and in certain cases it may actually develop into blindness unless the condition is discovered and treated in time.

The disabilities and needs of partially-sighted children first received attention in England when in 1885 medical school inspectors urged the necessity of some form of specialised education for high myopes. It was not before 1908, however, that the first special class was established. The attempt was characterized at the time as "a step to help lame dogs over styles." The practice of myope schools was soon extended in England and later adopted in other countries, particularly in America, where such classes came to be known as "**Sight-Conservation or Sight-Saving Classes,**" a more appropriate name than myope classes because the pupils comprise not only myopes, but also children with other eye and vision defects.

The number of partially-sighted children is much greater than that of the blind, and although the disabilities connected with poor sight form a less serious handicap than blindness, the effect of seriously defective vision on geueral efficiency constitutes in the aggregate a much larger national problem. Defective vision may lead to actual physical suffering, and it certainly interferes with the usual educational procedures, whilst it may further result in backwardness, behaviour defects of various kinds, and, in extreme cases, in total blindness.

The frequency with which vision or eye defects occur, is evidenced by the fact that they sometimes rank third amongst all physical defects. The percentage of children with defective eyes or vision, definitely constituting an educational handicap, is estimated on a conservative basis as 12 per cent. of the school population. The majority of these children suffer from correctible or remediable defects which need not necessarily prevent them from following the ordinary classes for normally-sighted children. A certain number, however, fortuuately the minority, suffer from defects which cannot be completely corrected or remedied, and their condition will continue to show such a pronounced deviation from the normal that their education with the normal group is unwise, and sometimes impossible. **To meet their needs special educational facilities are necessary to enable them to achieve what they are capable of achieving, and further to make it possible to carry out remedial measures as far as it is possible to do so. Their number is estimated at 1 in every 500 of the school population.** There are no statistics available in South Africa, but other countries, such as America, have obtained figures which give us some indication of the extent of the problem. In certain States of America, for example, where medical inspection is carried out thoroughly, including both examination and treatment of eyes and sight, it has been found that 1 out of 1,200 children is a suitable candidate for Sight-Saving Classes. In States where the examination of eyes has not been thoroughly carried out, the proportion is 1 out of 250, whilst in States where medical inspection, including facilities for treatment, can be described as moderately thorough, the incidence is 1 out of 500.

We know that in South Africa medical school inspection is not as thoroughly organised as we might wish it to be. The two chief defects are (I am concerned with the defects of the system for the present and not with the admirable services rendered by the staff) insufficient personnel to ensure that all children will be examined at reasonable periods, say, three or four times during their school career, and the absence of an effective machinery to

provide treatment for those children requiring it. According to the latest report of the Superintendent-General of Education for the Cape Province, the percentage of children with defects of various kinds who receive treatment, is 60. The figure obtained by the Inter-Departmental Committee on Mental Deficiency (appointed November, 1928) for the whole Union was approximately 50. I think I am justified, therefore, in comparing South Africa, as far as medical inspection is concerned, with those American States where medical inspection and treatment are described as moderately thorough and where the incidence of children who are candidates for Sight-Saving Classes is 1 out of 500. On this basis there should be more than 700 European children in the Union who should attend Sight-Saving Classes.

It is interesting to observe that the proportion of defects of eyes and sight, as well as generally speaking of all defects, physical and mental, is greater in rural than in urban centres. Whereas the average percentage of children with eye defects is, as has been observed, 12, the percentage in some rural districts in America is 16. South Africa being predominantly rural and with comparatively few large urban areas, must necessarily be confronted with the difficult problem of arranging suitable educational facilities for its various types of defectives where the numbers involved in the different rural centres are comparatively small.

My further remarks will be confined to this small minority (1 out of 500 children) who because of serious defective vision or eye-trouble cannot be educated properly in the regular classes. These partially-sighted children, as they are called, must be distinguished on the one hand from the blind, and on the other hand from children with defective eyes and vision whose condition can be sufficiently corrected or remedied (for example, by operation, treatment or the prescription of glasses) to enable them to follow the ordinary class routine.

Partially-sighted children should not be classified with the blind, because Braille or finger-reading may lead to eye-strain and increase the difficulties already present, because such children insist on straining their eyes to try to read the Braille with their eyes instead of with their fingers.

Partially-sighted children comprise two groups: Those who because of eye defects cannot read ordinary school books or writing on the blackboard, as well as those who can read from textbooks and the blackboard, but only by such a strain on their eyes, and generally on their nervous system, that in the result not only their vision but also their general health may be affected.

The result of remaining in the ordinary classes is that these children come to be retarded in greater or less degree, and not infrequently their poor school progress leads to their being considered as mentally defective. Often, too, they become the objects of ridicule of the other school children (children of a certain age are known to be unsympathetic and even cruel towards the handicapped) and instead of being happy and bright, they become morose and self-centred. To escape from a school environment which they hate, they may become truants and in various other ways they may develop undesirable character traits, and not infrequently delinquent tendencies.

The result of the examination of the eye conditions generally, and not only of vision, determines admission to a sight-saving class. Whilst quantitative measurements to determine the acuity of vision are not the only means of deciding which children are candidates for sight-saving classes, it may be stated in general that, with the exception of children suffering from progressive eye troubles, children with $\frac{6}{60}$ vision or over, in the better eye after correction or treatment, can usually carry on their work profitably in the ordinary class-room. Where the vision is $\frac{6}{200}$ or less, after correction or treatment, the child should be considered blind and his method of education should be by means of finger reading. Children falling between these extremes, as well as all children with progressive eye troubles, should be candidates for sight-saving classes.

Sight-saving classes will generally comprise three types of children :—

(*a*) Myopes (short-sighted children) ;

(*b*) Children with scarred eyes whose vision is poor ;

(*c*) Children with congenitally weak eyes, that is, with eyes which have not developed properly, with resultant poor or imperfect vision.

The last group have congenitally defective eyes and in the special school routine they may generally be given any work which they can see to do.

The myopes have frail eyes, overstretched and therefore weakened, and the vision is also defective. The high myopes should be treated with great care, and severe physical exercises of a jerky nature should be avoided as they may cause blindness.

The children with scarred eyes see as through a fog, and therefore imperfectly. Some of them may be subject to recurrent attacks of inflammation, especially when over-tired or wet. When the scarring gets less dense and the vision improves, the pupils may be returned to the ordinary classes.

A policy of sight saving demands the following measures :—

(*a*) Detection and correction of visual defects.
(*b*) Detection and treatment of eye diseases.
(*c*) Special classes for those children who, in spite of treatment, are incapable of following the ordinary school routine without danger to their eyes.

The provision of special educational facilities for partially-sighted children has advantages not only for these children themselves, but also for the normally-sighted children. The teacher of the ordinary classes is then able to devote all his time to the latter, and their progress is not impeded by the presence of handicapped children who often demand a great deal of his time. On the other hand, by providing the partially-sighted children with educational facilities commensurate with their needs, they are enabled to develop their powers within the limits of their capacities. Such classes are an advantage also to the school organisation and the educational system generally, because they relieve the ordinary classes of retarded pupils, who are then specially and effectively dealt with.

An important and essential factor in a sight saving policy is a thorough system of medical school inspection, with suitable provision for follow-up or treatment. The close relation between vision and general health makes it necessary that the condition of the eyes and of vision should also be examined, otherwise a true estimate of the child's health is not obtained.

Unfortunately, as has been observed, the organisation of our school medical service does not provide for sufficiently frequent inspection, nor does it make adequate provision for the highly necessary after-care and treatment. The Inter-departmental Committee on Mental Deficiency visited schools during 1929 which had had no medical inspection for seven years (I am, of course, quoting extreme cases), and in the course of evidence submitted to the Committee, it transpired that, at most, 50 per cent. of children suffering from definitely diagnosed ailments or diseases were receiving treatment. Moreover, the position with regard to eye examination and treatment was not all it might be, especially

in rural areas where the services of eye-specialists were generally not available. The education authorities, however, are very sympathetic and appreciate the importance of sight-saving in their health programme, and we can confidently expect that as money becomes less scarce, they will extend and improve the machinery of medical inspection to ensure that a thorough examination of eyes at reasonably short intervals becomes part of the routine inspections, and more particularly, that all eye defects receive the necessary attention.

As indicating the importance and prevalence of eye defects amongst school children, it might be mentioned that amongst 4,601 children notified as suffering from physical defects in a group of English schools, 1,082 cases were connected with defective vision. The ideal to aim at with regard to medical inspection is the practice which obtains in certain parts of England where during the course of his school career every child receives four medical examinations, at entrance to the school, at the age of eight, again at eleven or twelve, and finally during the last term before leaving school.

Vision, however, is so important that an effort should be made to test it, if possible, yearly. It is obvious that even with the most complete system of medical inspection, it will not be possible to do this. It should be possible, however, to train teachers, nurses and other non-medical examiners to carry out preliminary examination of vision with a great degree of reliance. In certain cities of America the general reliability of examinations by nurses has been definitely established. In Cleveland 88 per cent. of the cases referred by nurses for specialist medical examination have been confirmed by the clinics; in New York, 95 per cent. If teachers and nurses are to assist, as the most practical means now available, in making eye inspections, it is necessary that the school personnel should be carefully instructed in the best methods of sight conservation.

An absence of $\frac{6}{6}$ vision in either or both eyes, or the existence of symptoms of eye strain (asthenopia) such as headaches, red or scaly lid margins, and tiring of the eyes, indicates the need of further examination by a competent person, and the nurse or Principal should take the necessary steps to secure such examination.

Frequent testing of the child's eyes during his school career is made necessary by the fact that a child's age is a factor in the condition of his vision. At 6 years of age the

average child is still hyperopic, a condition which gradually decreases as the child grows older. From 9 to 10 years a tendency to myopia may appear and increase, and from 12 to 15 years the eye condition is likely to be changing again. Throughout his school career, therefore, the average child's eyes and vision undergo changes, usually slight, but sometimes important.

There are two distinct methods of conducting sight-saving classes. The one (generally followed in Scotland) consists of concentrating and segregating the pupils in separate schools or classes where they are taught all their school subjects apart from the ordinary sighted children. The other practice, favoured in America and generally known as the co-ordinating system, considers the partially-sighted children as regular pupils of the ordinary classes who go to a special room or class only when they want individual instruction or attention in work which requires fairly intensive use of the eyes. The latter method is considered the better one, both on educational grounds and on grounds of experience. Educationally it is inadvisable to remove children from an ordinary school environment, unless their condition definitely demands it. In the case of partially-sighted children the necessity for segregation does not exist. Experience has further shown that the co-operative system can produce school results not inferior to the other method. The children attend the ordinary classes for such subjects as can generally be learnt by merely listening to the teacher. Lessons that need much reading and writing are given in the special class, where attention is given to the use of books, charts, etc., in large print, and where writing, whether on paper or on the blackboard, is likewise done in large letters.

There are two reasons for sight-saving classes: the one is to conserve the sight and health of the child; the other is to provide special means of education for handicapped children who would otherwise not be suitably educated. Whilst the second consideration is by no means unimportant, the first is of primary importance. Sight-saving classes are first and foremost health conservation classes, and the educational considerations should be definitely subordinated to this objective.

If considerations of health are foremost, it is evident that the teachers of sight-saving classes should be well acquainted with eye conditions and the limitations they impose on school work. Amongst sight-saving pupils there are moreover various eye defects (such as, progressive myopia, corneal scars, traumatic injuries) each of which requires a special teaching technique.

Teachers of sight-saving classes must therefore be highly qualified, and besides being qualified teachers they should have a special knowledge of the medical and educational needs of partially-sighted children. In the course of their work they will be obliged to face problems which do not enter into the teaching of normally-sighted children.

In sight-saving education, the role of the teacher is in reality so important that we may consider her as the strategic point in our endeavours for this type of handicapped children. Given ideal conditions, but a teacher unfitted for the work, the result will be failure, whereas a competent teacher, though working under unfavourable conditions, will nevertheless make a success of her work.

The tools and instruments of teaching, as well as the whole paraphernalia of class room equipment, receive a distinct significance in sight-saving classes. The selection of a room is of importance, and the lighting conditions, both natural and artificial, are of unusual significance. Seating equipment has an importance which it usually does not possess in the ordinary school. Books and charts, paper, pencils and pens, tables and chairs, and typewriters must all be adapted to the needs of the poorly-sighted pupil.

South Africa is more than two decades behind other countries in its failure to provide adequately for partially-sighted children. There is not a single class in the Union for this type of children, although their number, in the case of Europeans only, probably exceeds 700. **The South African National Council for the Blind has focussed public attention on the problem, and those authorities which have been approached, have expressed appreciation of the problem and a desire to make some provision, in the nature of an experiment, to meet the existing needs.** The National Council is willing, and indeed anxious to co-operate with the various education authorities, and it is hoped that their combined efforts will result in action of some kind.

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